Claims

[c1] 1. A communication system for an automotive vehicle comprising:
a global positioning satellite (GPS) receiver generating a pulse per second (PPS) signal;
a frequency hopping spread spectrum (FHSS) transceiver in communication with the GPS receiver, the FHSS transceiver communicating with a plurality of FHSS transceivers in other automotive vehicles; and
control logic in communication with the FHSS transceiver and the GPS receiver, the control logic operative to synchronize discovery of at least one of the plurality of FHSS transceivers in the other automotive vehicles based on the PPS signal.

[c2] 2. A communication system for an automotive vehicle as in claim 1 wherein the control logic forms a first piconet with a first subset of the plurality of FHSS transceivers in other automotive vehicles and a second piconet with a second subset of the plurality of FHSS transceivers in other automotive vehicles.

[c3] 3. A communication system for an automotive vehicle as in claim 2 wherein the control logic synchronously switches between communicating in the first piconet and communicating in the second piconet based on the PPS signal.

[c4] 4. A communication system for an automotive vehicle as in claim 1 wherein the FHSS transceiver is a Bluetooth transceiver.

[c5] 5. A method of communication between automotive vehicles comprising:
receiving in each of a plurality of vehicles global positioning satellite signals from a plurality of global positioning satellites;
determining a pulse per second (PPS) signal in each of the plurality of vehicles based on the global positioning satellite signals;
determining, in at least one of the plurality of vehicles, a frequency hopping pattern for transmitting inquiry packets;
transmitting inquiry packets from the at least one vehicle based on the determined frequency hopping pattern and on the PPS signal;
listening for inquiry packets in at least one of the plurality of vehicles at a plurality of discovery times, each discovery time based on the PPS signal; and

establishing a network between the at least one vehicle transmitting inquiry packets and at least one vehicle listening for inquiry packets if the at least one vehicle listening for inquiry packets receives an inquiry packet from the at least one vehicle transmitting inquiry packets.

[c6] 6. A method of communication between automotive vehicles as in claim 5 wherein at least one vehicle of the plurality of vehicles participates in a first network and a second network, the first network operating concurrently with the second network.

[c7] 7. A method of communication between automotive vehicles as in claim 6 further comprising synchronously switching between communicating in the first network and communicating in the second network based on the PPS signal.

[c8] 8. A method of communication between automotive vehicles as in claim 5 wherein determining a frequency hopping pattern, transmitting inquiry packets, listening for inquiry packets, and establishing a network are based on a Bluetooth standard.

[c9] 9. An automotive communication system for communicating information between a plurality of automotive vehicles comprising at least one scatternet, each scatternet comprising a plurality of piconets, each piconet comprising at least one vehicle, each vehicle in the automotive communication system comprising a frequency hopping spread spectrum (FHSS) transceiver receiving a synchronizing pulse per second (PPS) signal derived from a global positioning system, whereby each FHSS transceiver in the automotive communication system is synchronized with every other FHSS transceiver in the automotive communication system by the PPS signal.

[c10] 10. An automotive communication system as in claim 9 wherein each FHSS transceiver is a Bluetooth transceiver.

[c11] 11. An automotive communication system as in claim 9 wherein each piconet is formed by vehicles transmitting and receiving inquiry packets at a plurality of inquiry times, each inquiry time based on the PPS signal.

[c12] 12. An automotive communication system as in claim 9 wherein at least one FHSS transceiver is participating in a plurality of piconets, the at least one FHSS transceiver synchronously switching between each piconet in the plurality of piconets based on the PPS signal.